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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/736,232
Filing Date: December 14, 2000
Appellant(s): SIRRINE, SCOTT A.

MAILED

JAN 2 4 2008

Technology Center 2100

Michael B. Stewart and Kenneth W. Jarrell
<u>For Appellant</u>

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 30, 2007, appealing from the Office actions

mailed March 16, 2007, and June 5, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct. However, in view of the specification, the term "inertia" as recited in the claims has been redefined and has different meaning from its ordinary meaning by Appellant in paragraphs [0052] and [0053] of the specification. The claimed redefined term "inertia" has the meaning equivalent to the ordinary meaning of "torque" as used by one of ordinary skill in the relevant art.

(I) The term "inertia" as recited in the claims has been redefined and has different meaning from its ordinary meaning.

For example, as described in paragraph [0052], the inertias T_D and T_C as defined in equations (2) and (3) are functions of RPM. Therefore, when the driveline is at rest (i.e., RPM =

0), the redefined inertias T_D and T_C are both equal to zero according to equations (2) and (3). It is contradictory to Appellant's argument at page 9, paragraphs 2 and 4, of Appellant's Appeal Brief:

"The McGraw Hill Dictionary of Scientific and Technical Terms defines inertia as: "that property of matter which manifests itself as a resistance to any change in the momentum of a body." Therefore, inertia requires only mass (lbm) and volume which are, significantly, a property of all matter. *An object in outer space would have inertia* since weight (lbf) is of no import (the acceleration due to gravity acting on an object does not affect the inertia of the object)."

"An object, such as a specific vehicle driveline, may have zero torque, but *the object always has inertia.*"

As argued by Appellant, "An object in outer space would have inertia" and "the object always has inertia". In other words, the inertia of an object would never be zero unless it has no mass. Therefore, the fact that "the redefined inertias T_D and T_C are both equal to zero according to equations (2) and (3) when the object is at rest (i.e., RPM = 0)" does indicate that the term "inertia" as recited in the claims has been redefined by Appellant and has different meaning from its ordinary meaning.

(II) The redefined term "inertia" has the meaning equivalent to the ordinary meaning of "torque" as used by one of ordinary skill in the relevant art.

For example, in paragraph [0053], when plugs θ_I of equation (4) into equation (5),

$$T_{ID} = I_I \, \theta_I$$

Where θ_I is the torsional acceleration (equation (4)) and I_I is the inertia (line 8, paragraph [0052]). It is equivalent to equation (9) as disclosed by Creger at column 5, lines 56-65. If the redefined term "inertia" still has its ordinary meaning of "inertia" as argued by Appellant, equation (5) would be read as:

inertia = inertia * torsional acceleration

which is false under the laws of physics.

Comparing with equation (9) as disclosed by Creger at column 5, lines 56-65, the

redefined term T_{ID} as shown in equation (5) of the specification, therefore, has the meaning

equivalent to the ordinary meaning of "torque" as used by one of ordinary skill in the relevant

art.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Eaton Corporation (hereinafter "Eaton"), "Eaton Truck Components Bulletin, TRIB-9701",

1997, including the DAA program (hereinafter "Screen Captures")

5,848,371   .   CREGER   12-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

A.   Claims 1-5, 7, 9, 10, 12-15, and 17-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Eaton Corporation (hereinafter "Eaton"), "Eaton Truck Components Bulletin,

TRIB-9701", 1997, including the DAA program (The screen captures of DAA program was

provided by Applicant on July 14, 2005 in response to Requirement for Information - 37 C.F.R.

§1.105, dated May 16, 2005, as "DOS-Based Driveline Angle Analyzer (DAA) Screen Captures"

(hereinafter "Screen Captures")), in view of Creger, U.S. Patent 5,848,371 issued December 8,

1998.

A-1.   Regarding claim 1, Eaton discloses a method of determining at least one of a torsional

acceleration and an inertia of a vehicle driveline configuration comprising the step of

entering measurements for the vehicle driveline configuration into a graphical user

interface program (Screen Captures, on Driveline Dimension Entry Screen, page 4, user may

enter the measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the

vehicle driveline configuration).

Eaton fails to expressly disclose determining an inertia of the vehicle driveline based on

the entered measurements. Nevertheless, Eaton discloses using the Eaton DAA program to

determine u-joint acceleration based on the entered measurements in troubleshooting drivetrain

noise and vibration.

Creger discloses a method for determining an estimate of a driveline torque using

equations 8-11 (column 6, lines 26-28) because driveline torque is a useful value to monitor in

predicting future problems (column 1, lines 13-24). Specifically, as shown in equation 9, torque

(driveline inertia) is determined by multiplying I_{MN} and ACCELERATION, where I_{MN} is a

calculation based on predetermined lumped inertia constants and gear reductions. In other

words, the relationship between torque (driveline inertia) and ACCELERATION is I_{MN}, which is

a calculated constant based on predetermined constants. Creger also discloses the diagnostic

controller 110 records or stores the ECM information in a memory for download into an external

computer for future analysis (column 2, lines 36-39).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the teachings of Eaton to incorporate the teachings of Creger to obtain the

invention as specified in claim 1 because torque (driveline inertia) is proportional to the already

determined acceleration (i.e., after acceleration has been determined by the Eaton DAA program

the torque (driveline inertia) can be determined by multiplying I_{MN} and the determined

acceleration, where I_{MN} is a calculated constant based on predetermined constants as taught by

Creger) and driveline torque is a useful value to monitor in predicting future problems as

suggested by Creger.

A-2.   Regarding claim 2, Eaton further discloses the step of selecting a representative vehicle

driveline configuration from a plurality of driveline configurations prior to entering

measurements of the vehicle driveline configuration into the graphical user interface program

(Eaton, for example, three vehicle driveline configurations have been disclosed in the last two

pages of Eaton Bulletin for user to select).

A-3.   Regarding claim 3, Eaton further discloses the graphical user interface program includes

a corrective mode for enabling a user to interactively change the entered measurements of the

vehicle driveline configuration to determine one of the torsional acceleration and the inertia of

the vehicle driveline configuration (Screen Captures, on Driveline Dimension Entry Screen, page

4, user may change the entered measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG

HEIGHT, of the vehicle driveline configuration and receive the RESULTS of the changed

accelerations).

A-4.   Regarding claim 4, Eaton further discloses the step of printing a worksheet to aide a user

in entering of the measurements for the vehicle driveline configuration (Screen Captures, on

Driveline Dimension Entry Screen, page 4, user may print a blank entry screen as a worksheet by

clicking PRINT (F7) icon).

A-5.   Regarding claim 5, Eaton further discloses the step of printing results from the

determination of the inertia for the vehicle driveline configuration (Screen Captures, Report

Printout Screen, page 5).

A-6.   Regarding claim 7, Eaton discloses a method of diagnosing and correcting driveline

angles and lengths of components of a vehicle driveline, comprising the steps of:

selecting a representative vehicle driveline from a plurality of saved driveline

configurations (Screen Captures, on Documentation Entry Screen, page 3, user may load data

file; Eaton, for example, three vehicle driveline configurations have been disclosed in the last

two pages of Eaton Bulletin for user to select);

entering measurements of the vehicle driveline into a graphical user interface program

(Screen Captures, on Driveline Dimension Entry Screen, page 4, user may enter the

measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle

driveline configuration);

determining [an inertia] (a torsional acceration) of the vehicle driveline based on the

entered measurements of the driveline angles and lengths of the components (Screen Captures,

RESULTS on Driveline Dimension Entry Screen, page 4); and

enabling a user to interactively change the entered measurements of the vehicle driveline

to determine one of the torsional acceleration and the inertia of the vehicle driveline (Screen

Captures, on Driveline Dimension Entry Screen, page 4, user may change the entered

measurements, e.g., ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle driveline configuration and receive the RESULTS of the changed accelerations).

Eaton fails to expressly disclose determining an inertia of the vehicle driveline based on the entered measurements of the driveline angles and lengths of the components. Nevertheless, Eaton discloses using the Eaton DAA program to determine u-joint acceleration based on the entered measurements of the driveline angles and lengths of the components in troubleshooting drivetrain noise and vibration.

Creger discloses a method for determining an estimate of a driveline torque using equations 8-11 (column 6, lines 26-28) because driveline torque is a useful value to monitor in predicting future problems (column 1, lines 13-24). Specifically, as shown in equation 9, torque (driveline inertia) is determined by multiplying I_{MN} and ACCELERATION, where I_{MN} is a calculation based on predetermined lumped inertia constants and gear reductions. In other words, the relationship between torque (driveline inertia) and ACCELERATION is I_{MN}, which is a calculated constant based on predetermined constants. Creger also discloses the diagnostic controller 110 records or stores the ECM information in a memory for download into an external computer for future analysis (column 2, lines 36-39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Eaton to incorporate the teachings of Creger to obtain the invention as specified in claim 2 because torque (driveline inertia) is proportional to the already determined acceleration (i.e., after acceleration has been determined by the Eaton DAA program the torque (driveline inertia) can be determined by multiplying I_{MN} and the determined

acceleration, where I_{MN} is a calculated constant based on predetermined constants as taught by

Creger) and driveline torque is a useful value to monitor in predicting future problems as

suggested by Creger.

A-7. Regarding claim 9, Eaton further discloses the step of printing a worksheet to aide a user

in entering of the measurements for the vehicle driveline (Screen Captures, on Driveline

Dimension Entry Screen, page 4, user may print a blank entry screen as a worksheet by clicking

PRINT (F7) icon).

A-8. Regarding claim 10, Eaton further discloses the step of printing results from the

determination (Screen Captures, Report Printout Screen, page 5).

A-9. Regarding claim 12, Eaton discloses a method of determining one of a torsional

acceleration and a driveline inertia of a desired vehicle driveline configuration, comprising the

steps of:

selecting a vehicle driveline configuration from a plurality of driveline configurations

(Eaton, for example, three vehicle driveline configurations have been disclosed in the last two

pages of Eaton Bulletin for user to select);

entering measurement data for the desired vehicle driveline configuration (Screen

Captures, on Driveline Dimension Entry Screen, page 4, user may enter the measurements, e.g.,

ANGLE, PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle driveline configuration);

Eaton fails to expressly disclose determining the driveline inertia of the desired vehicle

driveline configuration and displaying a driveline inertia of the desired vehicle driveline

configuration based on the entered measurements. Nevertheless, Eaton's Driveline Dimension

Entry Screen provides the capability to display results and Eaton's DAA program has determined

the u-joint acceleration in troubleshooting drivetrain noise and vibration.

Creger discloses a method for determining an estimate of a driveline torque using

equations 8-11 (column 6, lines 26-28) because driveline torque is a useful value to monitor in

predicting future problems (column 1, lines 13-24). Specifically, as shown in equation 9, torque

(driveline inertia) is determined by multiplying I_{MN} and ACCELERATION, where I_{MN} is a

calculation based on predetermined lumped inertia constants and gear reductions. In other

words, the relationship between torque (driveline inertia) and ACCELERATION is I_{MN}, which is

a calculated constant based on predetermined constants. Creger also discloses the diagnostic

controller 110 records or stores the ECM information in a memory for download into an external

computer for future analysis (column 2, lines 36-39).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the teachings of Eaton to incorporate the teachings of Creger to obtain the

invention as specified in claim 12 because torque (driveline inertia) is proportional to the already

determined acceleration (i.e., after acceleration has been determined by the Eaton DAA program

the torque (driveline inertia) can be determined by multiplying I_{MN} and the determined

acceleration, where I_{MN} is a calculated constant based on predetermined constants as taught by

Creger) and driveline torque is a useful value to monitor in predicting future problems as

suggested by Creger.

A-10. Regarding claim 13, Eaton further discloses the step of enabling a user to interactively

change the entered measurements of the desired vehicle driveline configuration to determine the

torsional acceleration of the vehicle driveline configuration (Screen Captures, on Driveline

Dimension Entry Screen, page 4, user may change the entered measurements, e.g., ANGLE,

PHASE, LENGTH, or AIR BAG HEIGHT, of the vehicle driveline configuration and receive the

RESULTS of the changed accelerations).

A-11. Regarding claim 14, Eaton further discloses the step of printing a worksheet to aide a user

in entering of the measurements for the desired vehicle driveline configuration (Screen Captures,

on Driveline Dimension Entry Screen, page 4, user may print a blank entry screen as a worksheet

by clicking PRINT (F7) icon).

A-12. Regarding claim 15, Eaton further discloses the step of printing results from the

determination of the driveline inertia for the desired vehicle driveline configuration (Screen

Captures, Report Printout Screen, page 5).

A-13. Regarding claim 17, Eaton further discloses selecting a representative vehicle driveline

from a plurality of saved driveline configurations, wherein the step of selecting includes

comparing a picture of a selectable driveline configuration to the vehicle driveline (Screen

Captures, on Documentation Entry Screen, page 3, user may load data file; Eaton, for example,

three vehicle driveline configurations have been disclosed in the last two pages of Eaton Bulletin

for user to compare and select).

A-14. Regarding claim 18, Eaton further discloses wherein the step of selecting includes

comparing a picture of a selectable driveline configuration to the vehicle driveline (Eaton, for

example, three vehicle driveline configurations have been disclosed in the last two pages of

Eaton Bulletin for user to compare).

A-15. Regarding claim 19, Creger further discloses wherein the driveline inertia is a drive

inertia (a second lumped driveline inertia, column 2, lines 60-61).

A-16. Regarding claim 20, Creger further discloses wherein the driveline inertia is a coast

inertia (the lumped driveline inertia, column 3, lines 13-15).

A-17. Regarding claim 21, Eaton further discloses selecting a representative vehicle driveline

from a plurality of saved driveline configurations (Eaton, for example, three vehicle driveline

configurations have been disclosed in the last two pages of Eaton Bulletin for user to select).

B.   Claims 6, 11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the

combined teaching of Eaton Corporation (hereinafter "Eaton"), "Eaton Truck Components

Bulletin, TRIB-9701", 1997, including the DAA program (The screen captures of DAA program

was provided by Applicant on July 14, 2005 in response to Requirement for Information - 37

C.F.R. §1.105, dated May 16, 2005, as "DOS-Based Driveline Angle Analyzer (DAA) Screen

Captures" (hereinafter "Screen Captures")), and Creger, U.S. Patent 5,848,371 issued December

8, 1998.

B-1.   Regarding claim 6, Eaton discloses a method of determining at least one of a torsional

acceleration and an inertia of a vehicle driveline configuration in claim 1. Eaton also discloses a

Driveline Dimension Entry Screen at page 4 including RESULTS of acceleration values and a

SAVE (F1) icon.

Eaton fails to expressly disclose the step of saving results from the determination of the

inertia for the vehicle driveline configuration as an image file. However, saving a screen as an

image file is well known to one of ordinary skill in the relevant art.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the teachings of Eaton to incorporate the well known method of saving as

an image file to obtain the invention as specified in claim 6 because saving a screen as an image

file is only one of many well known saving file options.

B-2. Regarding claim 11, Eaton discloses a method of diagnosing and correcting driveline

angles and lengths of components of a vehicle driveline in claim 7. Eaton also discloses a

Driveline Dimension Entry Screen at page 4 including RESULTS of acceleration values and a

SAVE (F1) icon.

Eaton fails to expressly disclose the step of saving results from the determination as an

image file. However, saving a screen as an image file is well known to one of ordinary skill in

the relevant art.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the teachings of Eaton to incorporate the well known method of saving as

an image file to obtain the invention as specified in claim 11 because saving a screen as an image

file is only one of many well known saving file options.

B-3. Regarding claim 16, Eaton discloses a method of determining one of a torsional

acceleration and a driveline inertia of a desired vehicle driveline configuration in claim 12.

Eaton also discloses a Driveline Dimension Entry Screen at page 4 including RESULTS of

acceleration values and a SAVE (F1) icon.

Eaton fails to expressly disclose the step of saving results from the determination of the

driveline inertia for the vehicle driveline configuration as an image file. However, saving a

screen as an image file is well known to one of ordinary skill in the relevant art.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the teachings of Eaton to incorporate the well known method of saving as

an image file to obtain the invention as specified in claim 16 because saving a screen as an image

file is only one of many well known saving file options.

(10) Response to Argument

1.   Issue 1: Inertia is not Equivalent to Torque

Appellant argues:

a.   Inertia is not torque

"Accordingly, the Examiner rejected the pending claims by incorrectly concluding that
the alleged teaching of determining a torque in Creger is equivalent to determining an inertia, as
recited in the pending claims." (page 8, paragraph 4, Appeal Brief)

b.   Foot-Pound Mass Does Not Equal Foot-Pound Torque

"The McGraw Hill Dictionary of Scientific and Technical Terms defines inertia as: "that
property of matter which manifests itself as a resistance to any change in the momentum of a
body." Therefore, inertia requires only mass (lbm) and volume which are, significantly, a
property of all matter. *An object in outer space would have inertia* since weight (lbf) is of no
import (the acceleration due to gravity acting on an object does not affect the inertia of the
object)." (page 9, paragraph 2, Appeal Brief)

"An object, such as a specific vehicle driveline, may have zero torque, but *the object
always has inertia*." (page 9, paragraph 4, Appeal Brief)

"Accordingly, the Examiner's support for a prima facie case of obviousness under 35
U.S.C. § 103 (See MPEP 2143) is entirely premised upon a gross misunderstanding of the
principles of physics. Torque does not equal inertia and the Examiner's assumption that the two
are interchangeable cannot support a motivation to combine the references to reject the pending
claims for obviousness." (page 10, paragraph 2, Appeal Brief)

The Examiner respectfully disagrees with the Appellant's arguments.

As stated in the MPEP 2111.01 IV, "An applicant is entitled to be his or her own

lexicographer and may rebut the presumption that claim terms are to be given their ordinary and

customary meaning by clearly setting forth a definition of the term that is different from its

ordinary and customary meaning(s). See In re Paulsen, 30 F.3d 1475, 1480, 31 USPQ2d 1671,

1674 (Fed. Cir. 1994) (inventor may define specific terms used to describe invention, but must

do so "with reasonable clarity, deliberateness, and precision" and, if done, must "set out his

uncommon definition in some manner within the patent disclosure' so as to give one of ordinary

skill in the art notice of the change" in meaning) (quoting Intellicall, Inc. v. Phonometrics, Inc.,

952 F.2d 1384, 1387-88, 21 USPQ2d 1383, 1386 (Fed. Cir. 1992))."

In view of the specification, the term "inertia" as recited in the claims has been redefined

and has different meaning from its ordinary meaning by Appellant in paragraphs [0052] and

[0053] of the specification. The claimed redefined term "inertia" has the meaning equivalent to

the ordinary meaning of "torque" as used by one of ordinary skill in the relevant art.

(I) The term "inertia" as recited in the claims has been redefined and has different

meaning from its ordinary meaning.

For example, as described in paragraph [0052], the inertias T_D and T_C as defined in

equations (2) and (3) are functions of RPM. Therefore, when the driveline is at rest (i.e., RPM =

0), the redefined inertias T_D and T_C are both equal to zero according to equations (2) and (3).

As argued by Appellant, "An object in outer space would have inertia" and "the object

always has inertia". In other words, the inertia of an object would never be zero unless it has no

mass. Therefore, the fact that "the redefined inertias T_D and T_C are both equal to zero according

to equations (2) and (3) when the object is at rest (i.e., RPM = 0)" does indicate that the term

"inertia" as recited in the claims has been redefined by Appellant and has different meaning from

its ordinary meaning.

(II) The redefined term "inertia" has the meaning equivalent to the ordinary meaning of "torque" as used by one of ordinary skill in the relevant art.

For example, in paragraph [0053], when plugs θ_1 of equation (4) into equation (5),

$$T_{ID} = I_1 \theta_1$$

Where θ_1 is the torsional acceleration (equation (4)) and I_1 is the inertia (line 8, paragraph [0052]). It is equivalent to equation (9) as disclosed by Creger at column 5, lines 56-65. If the redefined term "inertia" still has its ordinary meaning of "inertia" as argued by Appellant, equation (5) would be read as:

inertia = inertia * torsional acceleration

which is false under the laws of physics.

Comparing with equation (9) as disclosed by Creger at column 5, lines 56-65, the redefined term T_{ID} as shown in equation (5) of the specification, therefore, has the meaning equivalent to the ordinary meaning of "torque" as used by one of ordinary skill in the relevant art.

Accordingly, in the Office Action, the Examiner does not assume that the inertia and torque are interchangeable. On the contrary, by recognizing that (I) the term "inertia" as recited in the claims has been redefined and has different meaning from its ordinary meaning by Appellant in paragraphs [0052] and [0053] of the specification and (II) the redefined term "inertia" has the meaning equivalent to the ordinary meaning of "torque" as used by one of ordinary skill in the relevant art, the Examiner made a prima facie case of obviousness under 35 U.S.C. § 103. Therefore, Appellant's arguments regarding "Inertia is not torque" and "Foot-Pound Mass Does Not Equal Foot-Pound Torque" are not persuasive.

2.   **Issue 2: The acceleration of Bulletin is not the acceleration of Creger**

Appellant argues:

a.   U-joint acceleration as a result of driveline angularity taught in Bulletin

"Accordingly, the "u-joint acceleration" as a result of driveline angularity taught in Eaton Truck Components Bulletin, page 1, line 9 refers to the angular, or torsional, acceleration of a particular component within a driveline due to a relative angular orientation of a u-joint when viewed from the perspective of a component that is rotating at a constant speed. This acceleration is not caused by an acceleration of the engine due to the increase in engine speed." (page 13, paragraph 2, Appeal Brief)

b.   The "acceleration" taught in Creger

"Creger clearly teaches an acceleration that is not dependent upon the angularity of the shafts or u-joints, as taught in Bulletin, but instead as relates to the rotational acceleration of the engine output shaft." (page 13, paragraph 4, Appeal Brief)

c.   Acceleration due to U-Joint Angularity does not Equal Engine Acceleration

"To reiterate the differences using a simple example, when all shafts in a driveline are aligned, that is, with co-axial axes, the "u-joint acceleration" taught in Eaton Truck Components Bulletin is zero, while the "acceleration" in the shafts and u-joints due to an increase or decrease in speed of the engine is the same as the engine acceleration. Accordingly, one of skill in the art would not combine the teachings of bulletin and Creger because the acceleration that is calculated in Bulletin is not interchangeable with the acceleration mentioned in Creger." (page 10, paragraph 2, Appeal Brief)

Appellant's arguments are not persuasive.

In response to Appellant's argument that the references fail to show certain features of Appellant's invention, it is noted that the features upon which Appellant relies (i.e., u-joint acceleration) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Because Appellant argues unclaimed features, e.g., "u-joint acceleration", Appellant's arguments are not persuasive.

3.   Issue 3: The combination of Bulletin and Creger does not teach "determining an

inertia" "based on entered measurements"

Appellant argues:

a.   The Examiner admits that Bulletin does not teach "determining an inertia"

"The Examiner states that Bulletin "fails to expressly disclose determining an inertia of
the vehicle driveline based upon entered measurements."" (page 14, paragraph 3, Appeal Brief)

b.   Creger does not teach 'determining an inertia' "based on entered measurements"

"Further, Equation 10 of Creger teaches away from "determining an inertia of the vehicle
driveline based on the entered measurements," by illustrating in Equation 10 that inertia is
determined by summing lumped inertia constants. Creger does not teach determining an inertia
based upon measurements, but based upon known constants for a known driveline configuration.
Accordingly, one of skill in the art would recognize that Creger would not be useful in
"determining an inertia of the vehicle driveline based on the entered measurements," because
Creger does not mention this determination or provide any direction on how to make this
determination using measurements. Thus, the combination of Bulletin and Creger does not teach
every recitation of at least independent claims 1, 7, and 12." (page 15, paragraph 3, Appeal
Brief)

c.   Because all Claim Recitations are not Taught in the Prior Art, Tile Examiner Fails to

Make a Prima Facie Case of Obviousness

"The Examiner states that Bulletin "discloses using the Eaton DAA program to determine
u-joint acceleration based upon the entered measurements." (Final Office Action mailed March
16, 2007). At best, Creger teaches determining a torque (which is not inertia as detailed in Issue
1 above) determination by multiplying an inertia constant by engine acceleration. (See
generally, Creger, Abstract, and specifically, Creger, Column 5, line 55 to column 6, line 28).
Further, the acceleration of Bulletin is not the same as the acceleration of Creger, as detailed in
Issue 2 above. Therefore, any combination of Bulletin and Creger, as understood by one of skill
in the art, would not teach "determining an inertia."" (page 15, paragraph 4, Appeal Brief)

The Examiner respectfully disagrees with the Appellant's arguments.

Appellant's arguments are based on the assumption that the claimed "inertia" has its

ordinary meaning. However, as discussed in Issue 1, by recognizing that (I) the term "inertia" as

recited in the claims has been redefined and has different meaning from its ordinary meaning by

Appellant in paragraphs [0052] and [0053] of the specification and (II) the redefined term

"inertia" has the meaning equivalent to the ordinary meaning of "torque" as used by one of

ordinary skill in the relevant art, the Examiner made a prima facie case of obviousness under 35

U.S.C. § 103. Therefore, Appellant's arguments are not persuasive.

4.   Issue 4: The combination of Bulletin and Creger does not teach a Coast Inertia

Appellant argues:

a.   Coast inertia is explicitly not taught in Creger

"However, the Examiner's cited passage of Creger complements the text of column 5,
line 55 to column 6, line 10, where *the engine of Creger is accelerating and not coasting*." (page
16, paragraph 3, Appeal Brief)

"Accordingly, one of skill in the art would recognize that any inertia taught in Creger
could not be a coast inertia since Creger never recognizes that the driveline inertia may change
for a driveline depending upon whether the driveline is in a drive configuration or in a coast
configuration (when power is being supplied by the inertia of the vehicle and passing back
through the axles to the rest of the drive train). Accordingly, the Examiner has failed to establish
a prima facie case of obviousness because the prior art does not mention a 'coast inertia.'" (page
16, the last paragraph, Appeal Brief)

The Examiner respectfully disagrees with the Appellant's arguments.

For example, as described in paragraph [0053], both equations (5) and (6) use I_l as inertia

(defined for I_n in line 8, paragraph [0052]). In other words, both T_{ID} and T_{IC} use the same inertia

I_l to calculate the redefined drive and cost "inertias". Therefore, with the ordinary meaning of

"inertia", the drive inertia is the same as the coast inertia. On the other hand with the redefined

meaning of "inertia", based on equation (9) of Creger, it would have been obvious to one of

ordinary skill in the art to recognize that T may be called drive or coast depends on the value of

ACCELERATION is positive or negative because Creger does not restrict the value of

ACCELERATION must be positive. Therefore, Appellant's arguments are not persuasive.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related

Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Herng-der Day
January 17, 2008

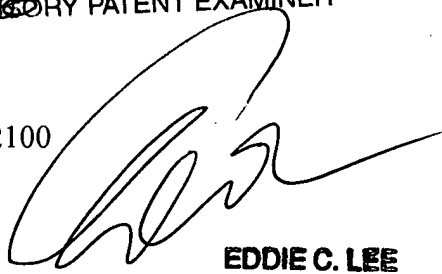Conferees:

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